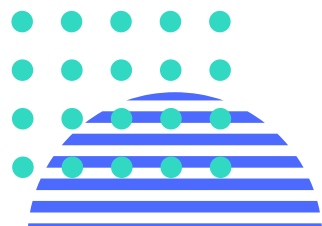


GUIDE

Route optimization: a comparison of the best software solutions





INTRODUCTION

Route optimization software has become essential for improving the efficiency of transport and delivery operations. These tools help plan routes, reduce costs and distances, meet time constraints, and enhance customer satisfaction.

With so many solutions available, choosing the right one isn't always easy.

This guide offers a **comparison of the leading solutions on the market** (Kardinal, PTV OptiFlow, Nomadia, Mapo, AntsRoute, and Route4Me), highlighting their strengths and limitations to help you select **the tool best suited** to your logistics needs.

CRITERIA FOR CHOOSING YOUR ROUTE OPTIMIZATION SOFTWARE



Key features

- Real-time optimization.
- Consideration of business constraints (vehicle capacity, delivery time windows, skills, etc.).
- Management of working hours and breaks.



Adapted pricing

- Free version or trial available.
- Flexible model based on fleet size and needs.
- Ability to support your business growth.



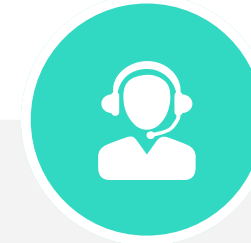
Ergonomics and accessibility

- Clear and intuitive interface.
- Software available in the user's language.



Integration and connectivity

- Compatible with your existing tools (TMS, DMS, ERP, CRM).
- Open APIs to connect third-party applications.



Customer support and reliability

- Responsive customer support.
- Local presence or personalized follow-up.
- Clear documentation and regular updates.



ROUTE OPTIMIZATION SOLUTIONS ANALYZED

01

Kardinal

02

PTV

03

Geoconcept/Nomadia

04

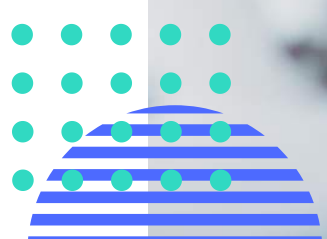
Aptean

05

Descartes

06

Route4Me



01 KARDINAL

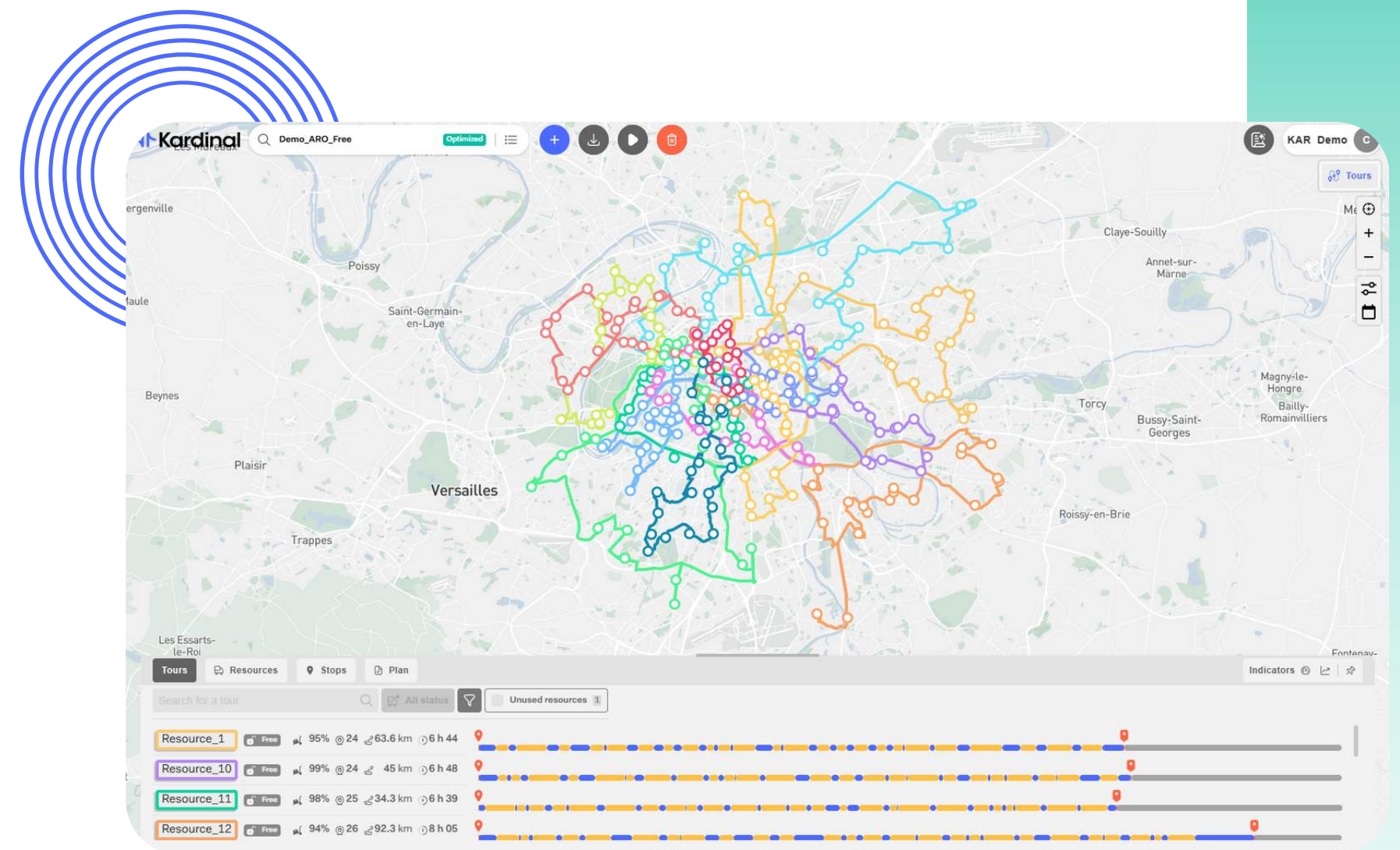
ARO (Always-on Route Optimization)

In brief: Cardinal's SaaS solution is recognized for the accuracy of its algorithms, capable of modeling the specific constraints of each organization.

Founded: 2015, France.

Key industries: Parcel delivery, waste and bulk transport, field services, urban couriers.

Clients: DPD France, Ciblex, Vente-unique, Séché Environnement, Glasseo, Krispy Kreme...



➤ Strengths

- Powerful algorithms capable of handling complex business constraints.
- Automatic real-time route adjustments.
- Predictive traffic consideration.
- Modern and intuitive interface.
- Fast deployment with highly responsive customer support.
- Recognized by Gartner (VRS* Guide 2025).

➤ Weaknesses

- Mainly suited for medium to large fleets, can be used by smaller operations via API.
- Recent mobile app with few public reviews.
- No native proof-of-delivery module, requires a third-party tool via API.

**Gartner Market Guide for Vehicle Routing & Scheduling*

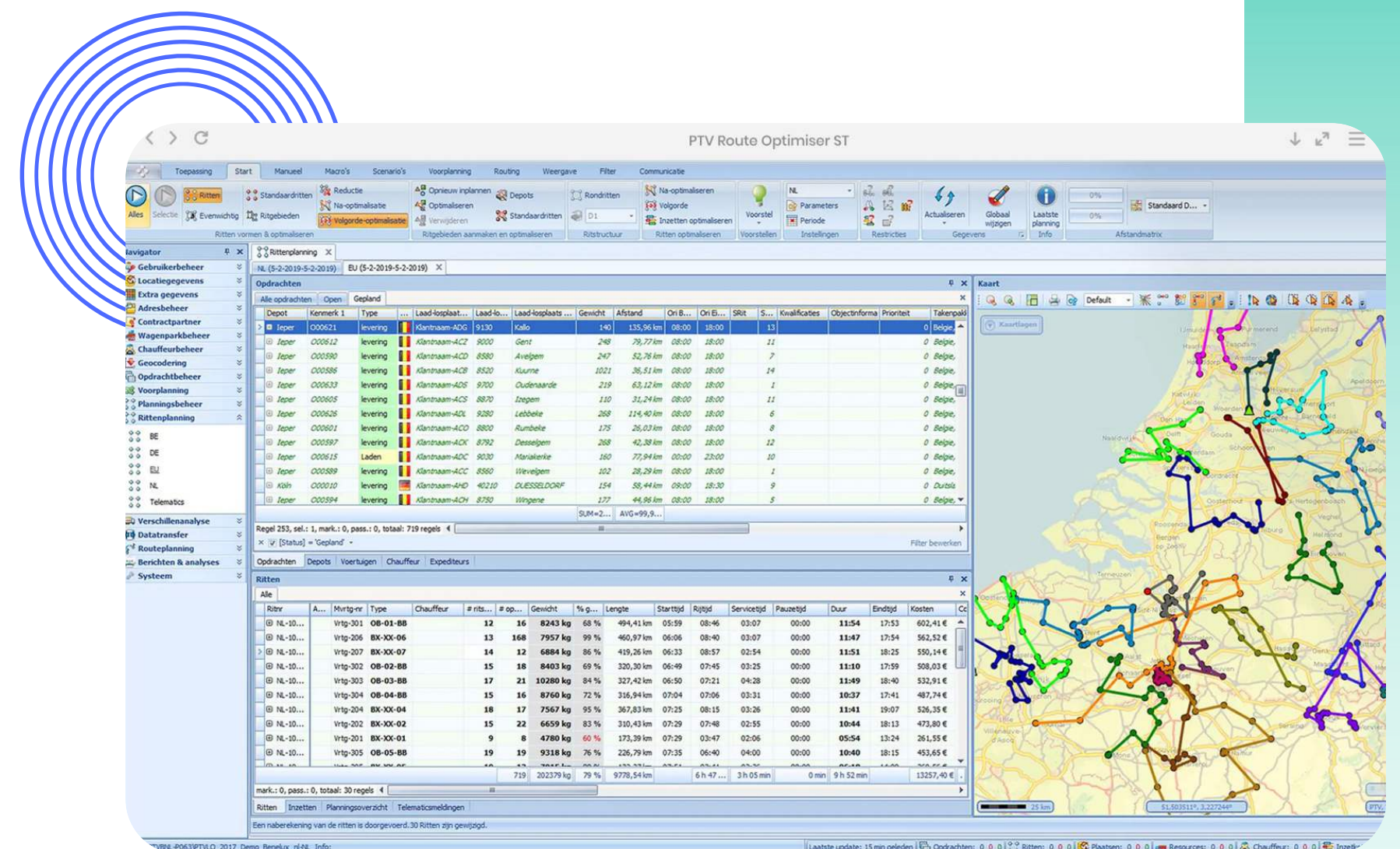
02 PTV PTV OptiFlow

In bref: PTV OptiFlow is a route optimization software recognized for its computing power and versatility, capable of handling large volumes for major companies and public organizations.

Founded: 1979, Germany.

Key industries: Transport, construction, waste collection, sales routes.

Clients: HelloFresh, CleanLease, Ahold Delhaize, Dynalogic...



➤ Strengths

- Over 40 years of global expertise in optimization and mapping.
- Capable of handling up to 15,000 orders simultaneously.
- Scenario simulation, cost analysis, and CO₂ emissions assessment.
- Presence in more than 120 countries, with strong local adaptation.

➤ Weaknesses

- Late transition to SaaS, solution less modern than some competitors.
- Can be complex to use, requiring training.
- Customer support may be limited according to user feedback.
- No dedicated mobile app.

03 GEOCONCEPT

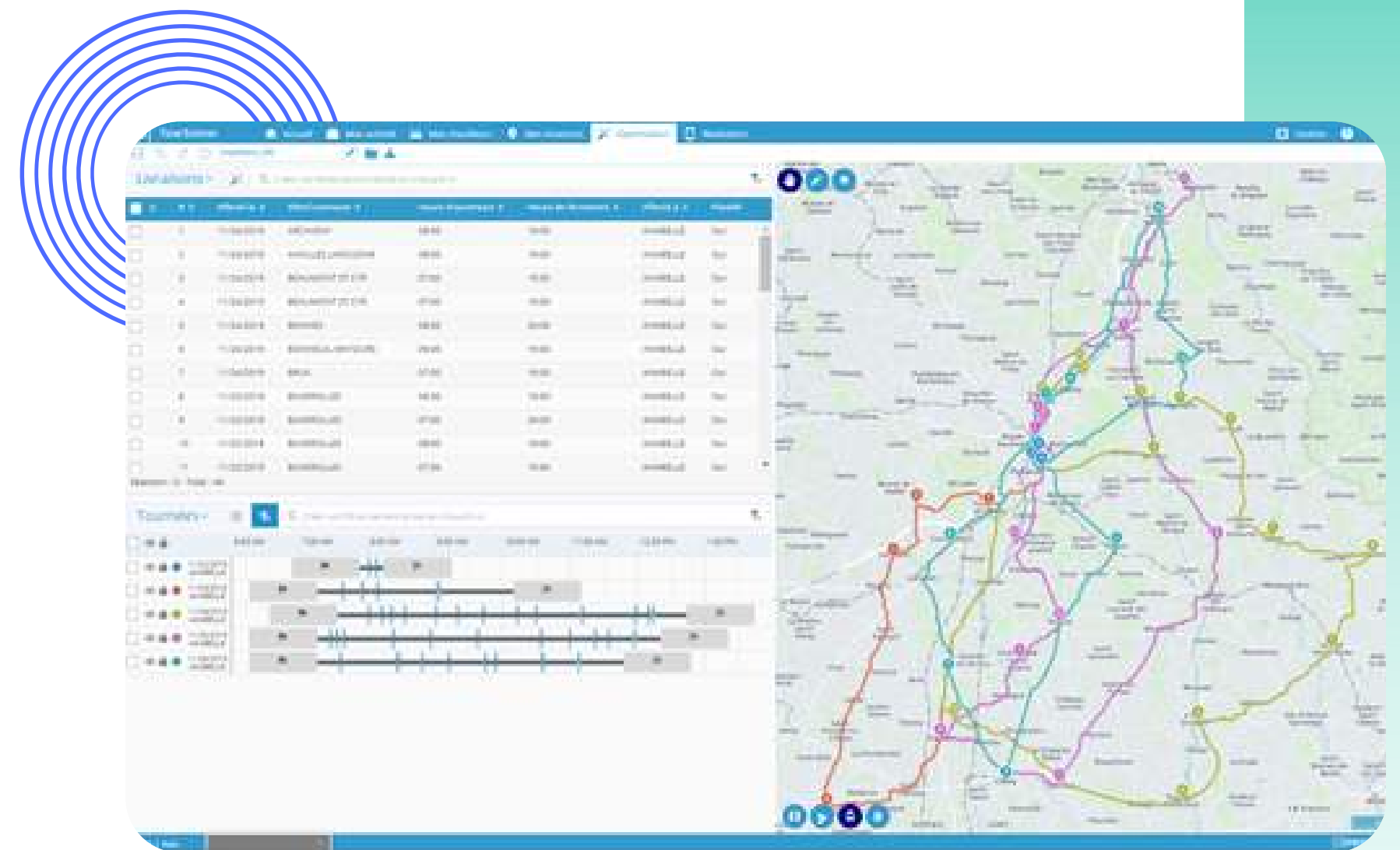
TourSolver

In brief: TourSolver, developed by Geoconcept and part of the Nomadia group since 2021, is a route optimization solution recognized for its flexibility and ease of integration into existing environments.

Founded: 1990, France.

Key industries: Food & beverage, energy, waste, healthcare, field services.

Clients: C Chez Vous, Potager City, Domino's Pizza, Proserve Dasri...



> Strengths

- Intuitive interface, particularly effective on mobile.
- Advanced customization with over 150 business criteria.
- Full-featured mobile app for field tracking and communication.
- Recognized by Gartner (VRS* Guide 2021).

> Weaknesses

- High level of customization can make onboarding complex.
- Integration and management of customer databases may be challenging.
- Technical support can be limited, with response times sometimes long in urgent situations.

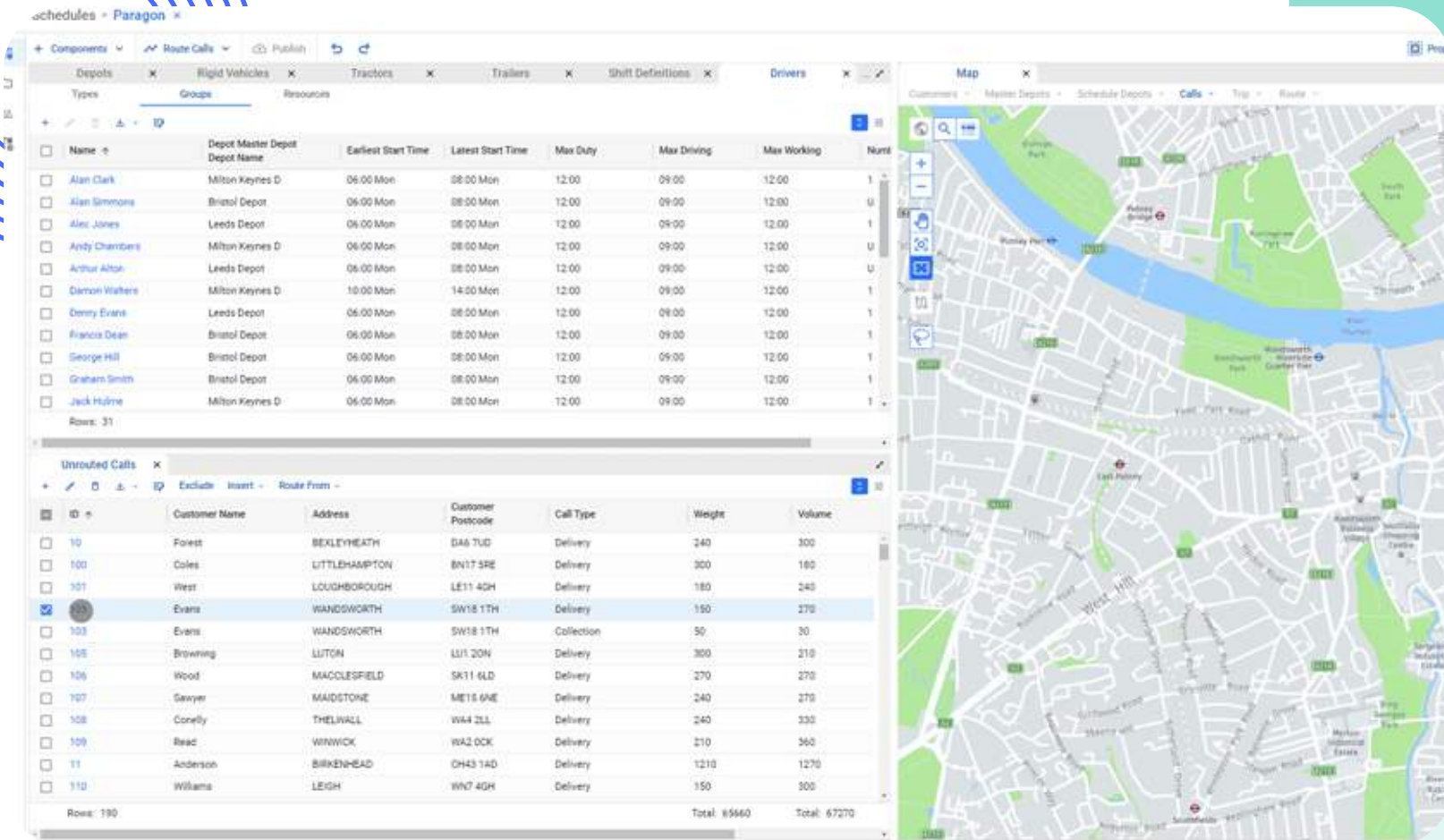
Screenshot of the Paragon software interface showing a list of components under the 'Depots' tab. The list includes Alan Clark, Alan Simpson, and Alan Jones, each with a checkbox and a 'Depot Name' column.

In brief: Aptean Routing & Scheduling (formerly Paragon) is a long-established route planning and optimization solution used for decades by distribution, transport, and field-service companies requiring robust, multi-constraint optimization.

Founded: 1991, United Kingdom.

Key industries: Distribution, transport, retail, logistics, field services.

Clients: Warburtons, SIG, Wincanton, John Lewis Partnership...



Strengths

- Proven and highly reliable optimization engine for complex planning.
- Well-suited for large fleets and high-volume operations.
- Advanced simulation capabilities for strategic and tactical decision-making.
- Broad integration ecosystem (TMS, WMS, ERP, telematics).

Weaknesses

- On-premise legacy can mean longer deployment cycles.
- Interface may require more time to master.
- Higher implementation costs compared to cloud-native SaaS alternatives.
- Product updates can be less frequent than on fully modern cloud platforms.

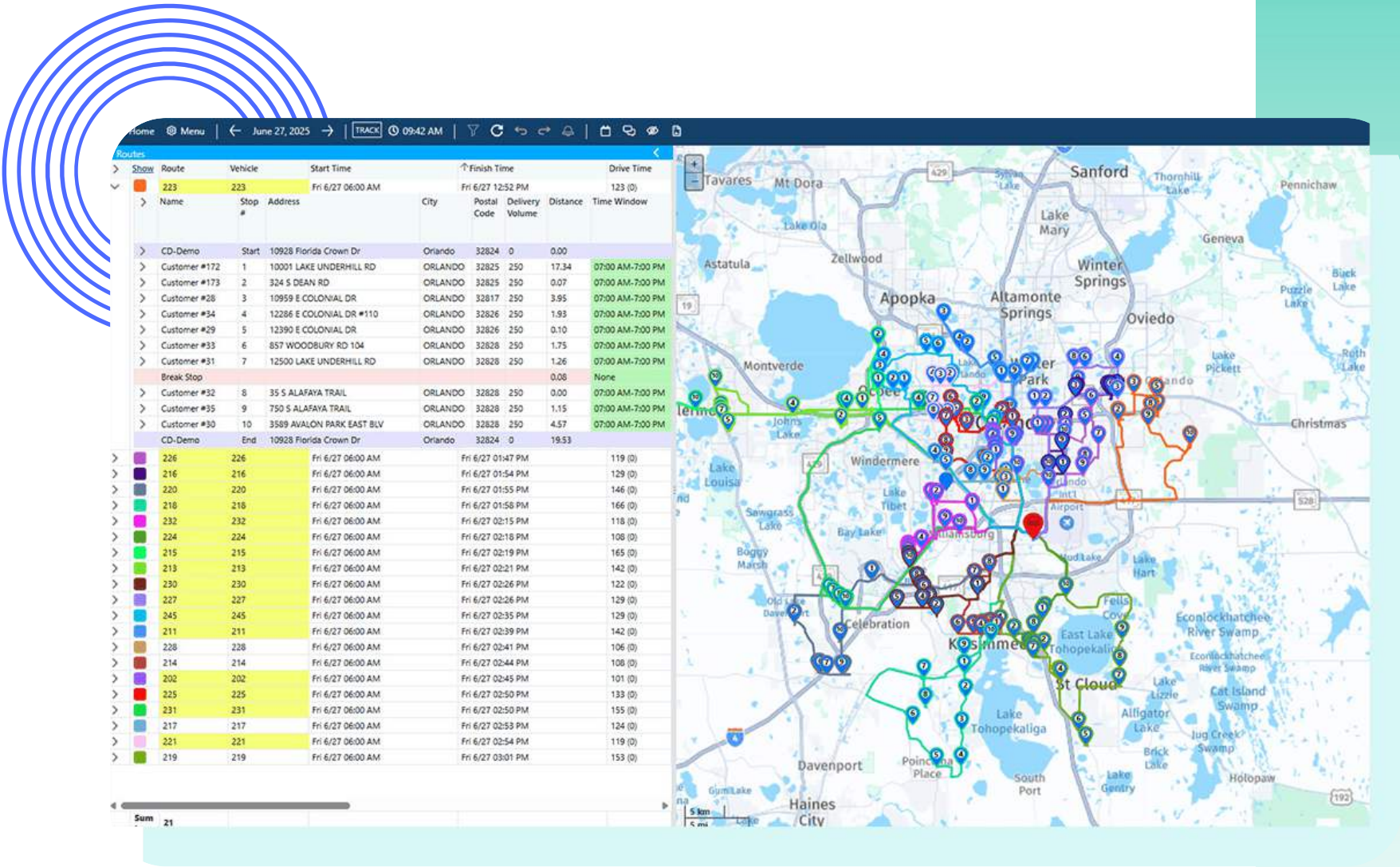
05 DESCARTES

In bref: Descartes Route Planner is an international cloud-based platform designed for end-to-end delivery planning—from daily routing to real-time execution, dynamic optimization, and customer appointment management.

Founded: 1981, Canada.

Key industries: Transport, retail, distribution, last-mile logistics.

Clients: Walmart Canada, Blue Apron, British Gas, Henry Schein....



Strengths

- Broad and advanced feature set: planning, execution, monitoring, communication.
- Strong last-mile capabilities: slot booking, ETA, real-time tracking.
- Highly scalable architecture for large operations.
- Regular updates, especially on cloud modules.

Weaknesses

- Configuration can be complex for specific operational models.
- Often requires substantial consulting during implementation.
- Some interface inconsistencies between modules.
- May be oversized for companies seeking a simple planning tool.

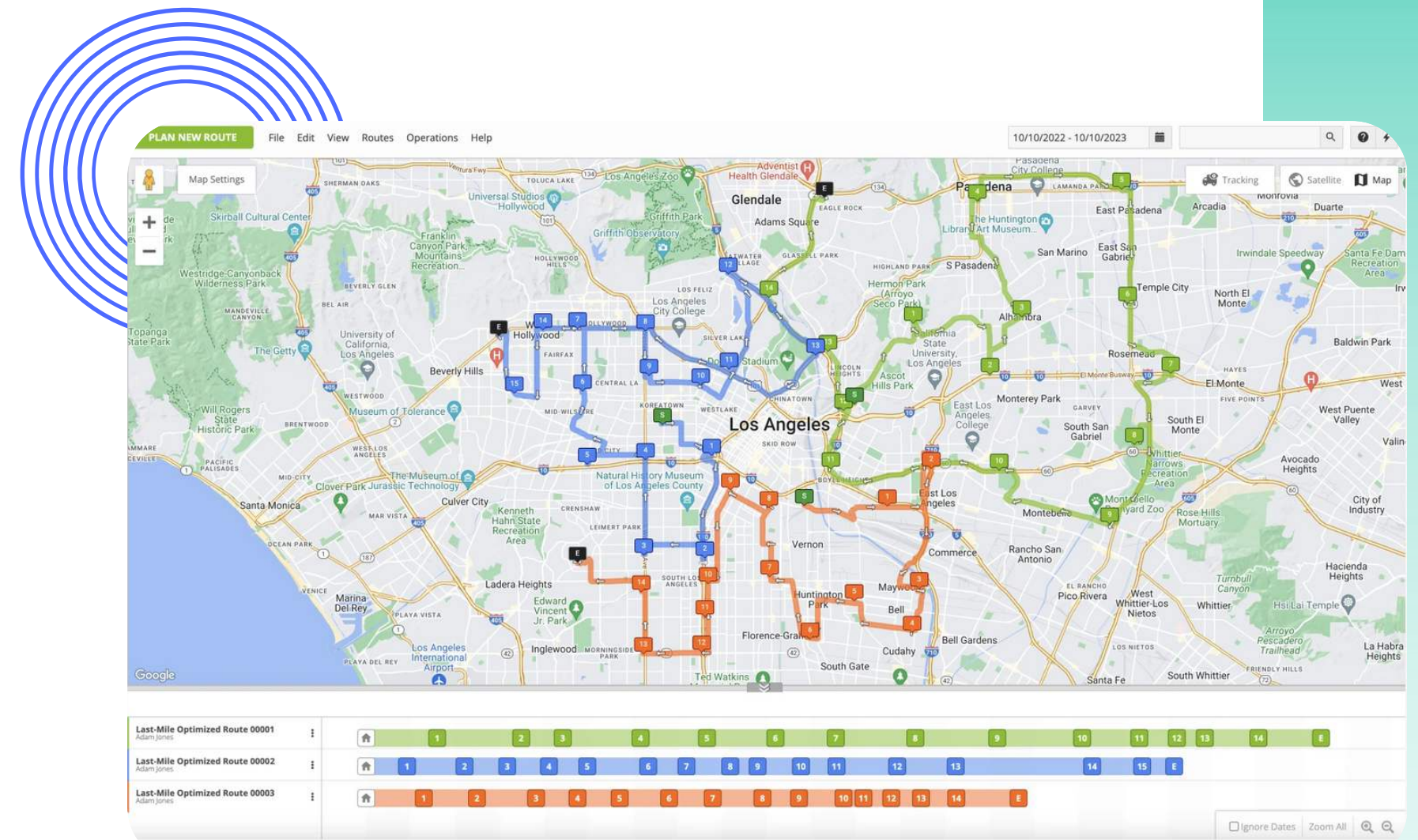
06 ROUTE4ME

In bref: Route4Me is a simple and accessible route optimization software aimed at SMEs and independent businesses, with a web platform and mobile apps for planning and real-time tracking.

Founded: 2009, USA.

Key industries: Delivery, freight transport, field services, and retail.

Clients: Accenture, Chipotle, USPS, Coca-Cola, FedEx...



➤ Strengths

- Simple and intuitive interface.
- Quick setup with data import.
- Flexible pricing suited for small businesses.
- Mobile apps for route management and tracking.
- Integrations with CRM, e-commerce, and management tools.

➤ Weaknesses

- Less effective optimization for complex cases.
- Limited route customization.
- Slower performance with very large data volumes.
- Customer support can be unresponsive at times, especially outside US hours.

COMPARISON TABLE



Solution	Description	Strengths	Weaknesses	Recognized by Gartner
Kardinal (ARO)	French SaaS route optimization solution, suitable for many industries, with integration to multiple TMS/DMS.	• Custom algorithms for complex constraints • Continuous optimization • Predictive traffic consideration • Fast deployment and highly responsive support	• Targeted at medium/large accounts, but optimization possible via API for smaller businesses • Recent mobile app with few public reviews	Yes, in 2025
PTV OptiFlow	Powerful and versatile German software, suited for large companies and public organizations, with SaaS and on-premise deployment.	• Over 40 years of experience • Optimization of very large volumes • Advanced features and simulation • International coverage	• Late transition to full SaaS • Complex onboarding • Customer support needs improvement • No dedicated mobile app	No
Geoconcept (TourSolver)	French software integrated into the Nomadia group, with cloud and mobile versions, highly customizable for business needs.	• Intuitive interface and mobile-friendly • Over 150 business criteria • Full-featured mobile app	• Complex onboarding • Challenges with customer database integration • Technical support can be improved	Yes, in 2021
Aptean	UK-based enterprise route optimization software designed for large fleets and complex logistics networks.	• Mature algorithms • Strong multi-depot support • Handles complex constraints • Robust integrations	• Heavy to deploy • Higher cost • Requires training • Not ideal for SMEs	No
Descartes	Canada-based routing and planning platform used by global operators, focused on real-time optimization and compliance.	• Good real-time optimization • Strong compliance features • Scalable for multinational organizations • Broad ecosystem	• Interface can feel dated • Configuration is complex • Less suited for small fleets	No
Route4Me	Widely used American SaaS solution, suited for SMEs and independents, with robust mobile apps.	• Ease of use • Quick setup • Flexible pricing • Effective mobile apps • Various integrations	• Less efficient algorithms on large volumes • Customer support could be better	No



CONCLUSION

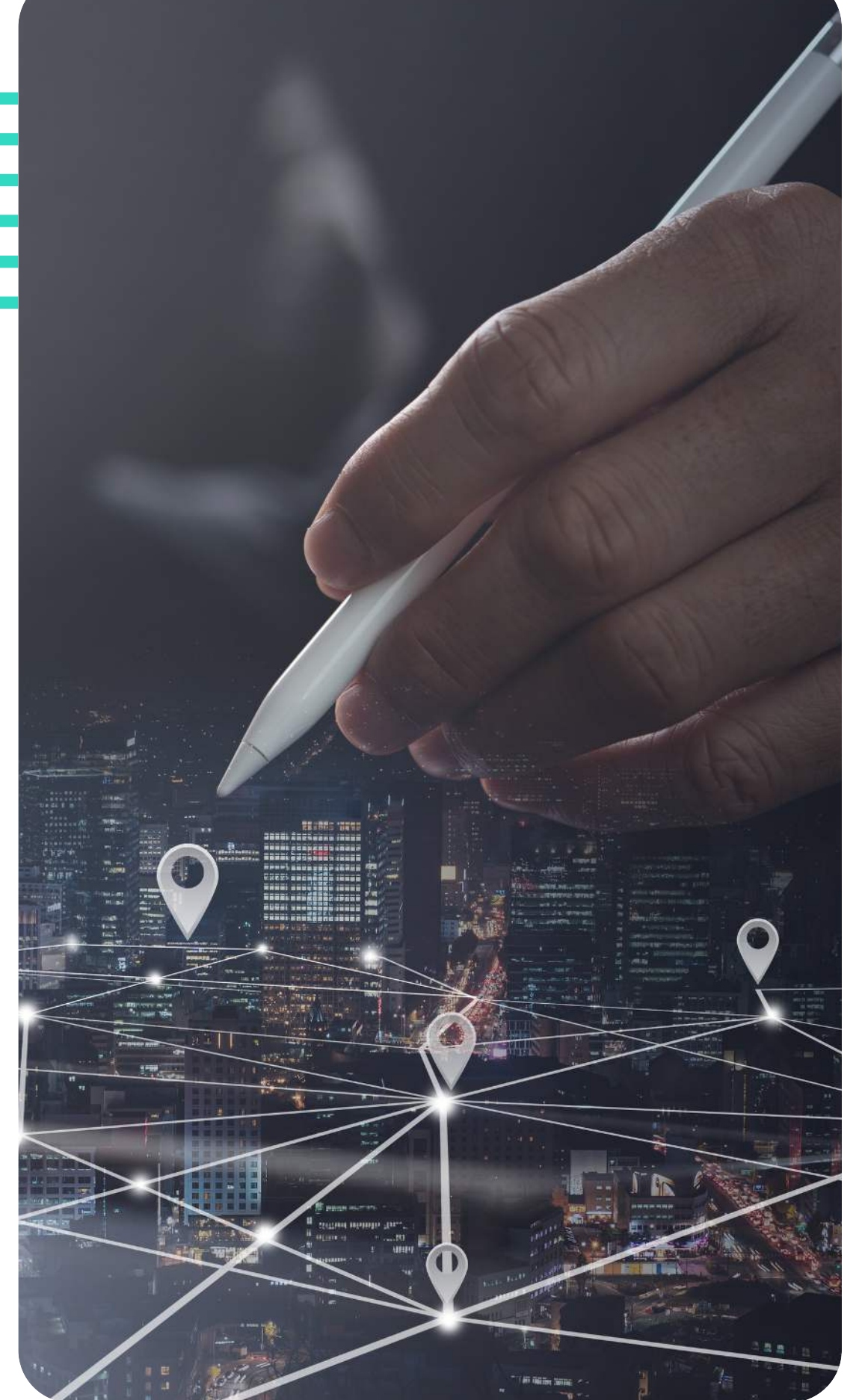
Choosing the route optimization solution that fits your constraints, fleet, and digital maturity is essential.

It's important to prioritize a tool that can **integrate easily**, **support your teams**, and **evolve with your needs**.

At Kardinal, we believe an effective software should **reflect real-world complexity**, **adapt in real time** to unexpected events, and provide **agile decision-making** for tangible daily benefits.



Want to learn more about Kardinal's route optimization solution or schedule a demo? [Contact us!](#)



Always-On Route Optimization

Our route optimization solution is the first on the market designed to operate continuously throughout your operations. Its unique functionality allows for updates and the addition of new data during planning, as well as consideration of real-world disruptions, for more efficient and realistic routes.



Easier data integration

Import Excel data through a fully customizable interface, or via our high-performance API.



Traffic anticipation

Traffic is taken into account prior to route calculations, making them more realistic and relevant.



Editable route plan

No one knows your routes better than your field experts. Our solution allows them to manually adjust routes using drag & drop.



Continuous optimization

Harness the power of our dynamic algorithm to adjust your routes in real-time to adapt to on-the-ground realities.



Custom modeling

Our proprietary solver models all your specific constraints, including the most complex ones.



Data correction

The “Always-on” approach allows you to correct data on the fly, without having to restart calculations from scratch.



Kardinal is a provider of innovative solutions dedicated to optimizing transport operations and supporting strategic decision-making.

Its technology stands out for its unique ability to accurately model the complexity of real-world operations and the business constraints of each organization, enabling more profitable, sustainable, and agile logistics.

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